



Journal of Public Health Research



eISSN 2279-9036

<https://www.jphres.org/>

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The final version of the manuscript will then appear on a regular issue of the journal. E-publishing of this PDF file has been approved by the authors.

J Public Health Res 2021 [Online ahead of print]

To cite this Article:

Daely S, Nuraini T, Gayatri D, et al. **Impacts of age and marital status on the elderly's quality of life in an elderly social institution.** J Public Health Res doi: 10.4081/jphr.2021.2731



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Impacts of age and marital status on the elderly's quality of life in an elderly social institution

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Keywords:

elderly, elderly social institution, quality of life, WHOQOL-BREF.

Acknowledgments:

This work is supported by PUTI Prosiding 2020, funded by Directorate of Research and Development Universitas Indonesia.

Funding: This work is supported by PUTI Prosiding 2020, funded by Directorate of Research and Development Universitas Indonesia No: NKB-3428/UN2.RST/HKP.05.00/2020.

Contributions:

SD, conceived the study, performed data analysis and interpret the results, manuscript drafting.

TN, contributed to managing the literature searches and writing, processing and analysis the data.

DG, involved in data analysis and interpretation of the findings.

HP, contributed to data management and writing, managing the literature searches and writing.

Conflict of interest:

The authors declared no conflicts of interest exist with respect to this work.

Availability of data and materials:

The data used to support the findings of this study can be made available upon reasonable request to the corresponding author.

Ethical approval:

Approval was given by the Ethics Committee of Faculty of Nursing Universitas Indonesia (SK-227/UN2.F12.D1.2.1/ETIK 2020).

Patient consent for publication:

Not applicable.

Informed consent:

Written informed consent was obtained from a legally authorized representative(s) for anonymized patient information to be published in this article.

Significance for public health

The results showed that the quality of life of the elderly in the elderly care center was still low. It is hoped that the contribution of service providers to in the elderly care center can help improve the elderly quality of life by means providing comprehensive bio-psycho-sociocultural services.

Abstract

Background: Living a life of good quality is important for everyone. This research aimed to get an overview of the quality of life (QOL) of the elderly in an elderly social institution in Jakarta, Indonesia.

Design and Methods: This descriptive study with a cross-sectional design included 107 participants using simple random sampling technique. Data were collected using an abbreviated World Health Organization Quality of Life (WHOQOL-BREF) and analyzed using statistical software, Mann Whitney and Kruskal Wallis test.

Results: The mean quality of life of the elderly's was 66.09 (scale: 0–100), with a mean QOL of 67.58 in the physical domain, 66.26 in the psychological domain, 64.64 in the social relationships domain, and 65.88 in the environment domain. Regarding age and marital status, there was a significant difference in the mean QOL of the elderly living in the elderly social institution ($p = .017$ and $.001$). In contrast, there was no significant difference in their mean QOL in terms of gender, level of education, and length of stay ($p = .323$, $.164$, and $.697$).

Conclusion: The low quality of life of the elderly is our concern. The staff in the elderly social institution could develop some activities for the elderly to increase the elderly's QOL, such as making daily activities plans and the evaluation of those activities.

Introduction

Quality of life is an essential thing to be achieved by everyone. When people get a good quality of life, their life could be prosperous. According to the WHO, quality of life can be defined as the perception of an individual toward their own life, which could be seen from the context of cultural, behavior, and value systems where they are living and having a connection with standards of life, such as happiness, hope, and individual judgment about their life status.¹ The Resident Life Expectancy (RLE), can be identified with the programs planned by the government about health care services and all their derivatives have succeeded.² This increase in RLE has been affected rapidly by the percentage of its elderly population.² The increasing of RLE should be balanced with good quality of life. Old age is the final stage of the human life cycle, with its various stages interconnected.³ So, the elderly need to achieve their quality of life in a good level.

Over the past 50 years or so (1971–2019), there has been an increase in the number of elderly people in Indonesia, which is as much as two times more than the previous number.⁴ According to the findings of the National Socioeconomic Survey conducted in 2013, the elderly population in Indonesia had reached 20.04 million, which was 8.05% of the total number of Indonesian citizens.⁵ Then, in 2018, it increased to 24.49 million, which constituted 9.27% of the total population in Indonesia. This number has increased from the previous year to as much as 23.4 million, which amounts to 8.97% elderly population in Indonesia, and this increase was estimated to be held for the next few years. Otherwise, it would have led the number of displaced elderly (those without a family) in Indonesia to further increase, including Jakarta, the capital of Indonesia.

Panti Sosial Tresna Werdha (PSTW) or an elderly social institution, is one of the facilities being provided by the government, especially the Department of Social Concerns in DKI Jakarta, which focuses on displaced elderly who do not have a family or friends who

could accept them, so the government must protect them by providing a place.⁶ Data shows that the number of residents *Warga Binaan Sosial* (WBS) in this elderly social institution has been increasing with each passing year. In 2014, there were 1119 people, which grew to 1387 in 2018. In Jakarta, they are spread across four PSTWs: 466 people in PSTW Budi Mulia 1; 429 in PSTW Budi Mulia 2; 275 in PSTW Budi Mulia 3; and 217 in PSTW Budi Mulia 4.

According to the WHOQOL, QOL is the perception that each person has toward their own life in society in the context of a culture and value system that is related to their objectives, standards, and hopes.⁷ According to Reno, QOL is a wide concept that is affected by several aspects, such as physical condition, independence level, psychological condition, and people's relation with their environment.⁸ Several factors that make the elderly's life useful include the following: when they are able to adjust and accept all changes, when they feel appreciated and are treated like normal people, when they are able to appreciate the environment and understand their rights such as their psychological needs and condition, and when they have the required facilities to improve their potential and capability.⁹

Living as an elderly still needs to be respected and have a good quality of life. If the QOL is not met, the elderly will experience depression, resulting in decreasing their QOL.¹⁰ A good QOL must be fulfilled from the physical, psychosocial, economic, etc.¹¹ The fulfillment of all the elderly's needs can be fulfilled in the Indonesian family culture. The Indonesian citizen generally as an extended family which having an elderly in their house. As the elderly needs to have a good QOL, so the other family member could be able to fulfill their needs. In fact, other family member cannot pay attention to elderly's need fully so the elderlies placed to the PSTW. When the elderlies were placed at the PSTW, they also experienced some problems with the new environment. Based on information from the Head of PSTW X, the staff who are working at PSTW mostly graduate from high school with a lack of knowledge about giving nursing care. So, the elderlies are treated by the staff with less holistic care (Tresna Werdha Social Home, Tresna Werdha K Social Home, Problems faced by the elderly while staying at the Tresna Werdha Social Institution (*unpublished personal interview*)).

Based on the previous studies found that the elderly who are living in elderly social institutions receive fewer services in the psychological domain; only their physical needs such as food, drinks, and showers are fulfilled. Several studies have discussed the QOL of the elderly living in elderly social institutions in Indonesia. Research conducted by Mahadewi and Ardani with elderly who are living in PSTW Wana Seraya Denpasar Bali, showed that more than 50% elderly has a low QOL.¹² Another research that had been carried out to see the relationship between elderly's social interaction with QOL who are living in Unit Pelayanan Terpadu (UPTD) Griya Werdha Kota Surabaya, found that elderly who has low QOL was 53.8%, the rest is having medium and high QOL.¹³ Sanjaya

and Rusdi stated that good social interaction could make the elderly feel not lonely in their life so it could improve their QOL.¹⁴ However, the elderly who are living in PSTW have poor social interaction. This is because the elderly feel that there are few activities managed by the PSTW focusing on elderly's QOL. The elderly also prefer to sleep in their room, so the interaction between elderly is limited which results in low elderly's QOL in PSTW.¹³

This research result is also similar with research conducted by Onunkwor *et al.* in 2016 stated that the elderly's QOL in PSTW reached the lowest score on social domain whereas the best score on physical domain.¹⁴ This is because the staff who are working in PSTW do not provide nursing services properly and residents are mostly elderly who were abandoned in hospitals by their families. These elderly are faced with challenges ranging from poor access to health care, decrease in social participation, neglect by family and friends, and unfriendly interactions such as reprimands and disturbances during sleep, all of which could affect QOL.¹⁵

In Jakarta, the research found by the researcher was conducted in PSTW X, which is located in South Jakarta, but it is unlikely that any research has been conducted in East Jakarta. The study was conducted in South Jakarta because researchers wanted to see the elderly's QOL and the factors that affect the elderly's QOL who are living in South Jakarta because they are not taken care of by their families. In addition, the objective of the study was conducted in South Jakarta focusing on the elderly's QOL is more diverse, so that it can be a comparison for future researches. Therefore, through this study, the researcher aimed to get an overview of the QOL of the elderly living in one of the elderly social institutions located in South Jakarta.

Design and Methods

This research followed a descriptive study design using the cross-sectional design. It was conducted in one of the elderly social institutions in South Jakarta, with 107 samples consisting of elderly men and women, who were selected using the simple random sampling technique with numbering all samples then choose the desired number from that list. The objective was to determine the QOL of the elderly in an elderly social institution in Jakarta using the Indonesian version of WHOQOL-BREF instrument. WHOQOL-BREF is the result of the development of the WHOQOL-100 quality of life assessment instrument by the WHOQOL group. WHO's initiative to develop QOL assessments emerged from the needs for a truly international quality of life measurement and commitment in continuing a health promotion with holistic approach.¹⁶ According to the World Health Organization, WHOQOL-BREF can be used for various purposes such as auditing, policy making, medical practice, assessing the effectiveness and benefits of various treatments, as well as assessing variations in QOL across different cultures.¹

The WHOQOL-BREF is available in 19 different languages including Indonesian version. WHOQOL-BREF is a shorter QOL instrument consisting of 26 items compared to the WHOQOL-100 which consists of 100 items.¹ WHOQOL-BREF divided into four main domains, including physical, psychological, environmental and social relationship.¹⁶ Each item has a 5-point Likert scale with a range of 1 to 5 where the higher number, the higher of QOL.¹⁷ World Health Organization provides a manual scoring to measure the measurement results or scoring from the WHOQOL-BREF, namely by adding up each item in each domain (raw score) and then converting it into the transformed score in the table provided.¹ One of the validity and reliability tests on the Indonesian version of the WHOQOL-BREF instrument was conducted by Puspawati and Rekawati in 2017. The test results obtained that the instrument validity r value was 0.889 and the Cronbach alpha reliability value was 0.872, meaning that this instrument can be used for research instruments.¹⁸ We conducted the research from June until July 2020. Mann-Whitney U and Kruskal Wallis Test were performed to analyze QOL of the elderly based on respondent characteristics.

Results

Based on demographic characteristics of the respondents, researcher found that most of respondents are early stage of elderly life 48 people (44.9%). There are more men elderly than women elderly, which is 62 elderly men from 107 elderly (57.9%). Most of the elderly are married 74 people (69.2%). Based on the education level of the elderly, more than 50% of the elderly have a low level of education, which is 72 people (67.3%). Most of the elderly have lived in the elderly social institution for two years or longer, which is 78 people (72.9%). This information can be seen in Table 1.

Table 1. Demographic information of the elderly (n = 107)

Variables	N (%)
Age	
Early stage of elderly life	48 (44.9)
Middle stage of elderly life	45 (42.1)
Final stage of elderly life	14 (13.1)
Gender	
Men	62 (57.9)
Women	45 (42.1)
Marital status	
Married	74 (69.2)
Not yet married	10 (9.3)
Divorced	23 (21.5)
Level of education	
Low	72 (67.3)
Middle	33 (30.8)
High	2 (1.9)
Length of stay	
Shorter than 2 years	29 (27.1)

2 years or longer	78 (72.9)
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Note: N: Total and percentage of respondent

According to QOL domains, the physical domain reached the highest mean of 67.58; the psychological domain 66.26; the social relationships domain 64.64; and the environment domain 65.88. Then, the QOL of the elderly in general was 66.09. This information can be seen in Table 2.

Table 2. Quality of life domains (n = 107)

Variable	Mean (standard deviation)	Confidence interval 95%
Physical domain (0–100)	67.58 (11.61)	65.35–69.80
Psychological domain (0–100)	66.26 (16.18)	63.16–69.36
Social domain (0–100)	64.64 (15.87)	61.60–67.69
Environment domain (0–100)	65.88 (13.87)	63.22–68.54
Quality of life (0–100)	66.09 (12.84)	63.63–68.55

Note: SD: standard deviation, CI: Confidence interval

QOL based on age, marital status, and level of education shows that the highest mean QOL of the elderly was in the old stage of elderly life (75.13); there was a significant difference in the mean QOL of the elderly in the early, middle, and old stages ($p < .05$). In terms of marital status, it was 69.06 for the married elderly. There was a significant difference noted in the mean QOL of the married elderly, single elderly, and divorced elderly ($p < .05$). The elderly with a medium level of education had the highest mean QOL (69.63); there was no significant difference in the mean QOL of the elderly with a low, medium, and high level of education ($p < .05$). This information can be seen in Table 3.

Table 3. Quality of life based on age, marital status, and level of education

Variable	Mean (standard deviation)	P value
Age		
Early stage of elderly life	64.82 (12.14)	.017*
Middle stage of elderly life	64.63 (12.23)	
Final stage of elderly life	75.13 (14.28)	
Marital status		
Married	69.06 (13.14)	.001*
Not yet married	62.43 (7.42)	
Divorced	58.12 (9.84)	
Level of education		
Low	64.50 (12.14)	.164
Middle	69.63 (14.12)	
High	65.00 (5.66)	

Note: Kruskal Wallis Test

Table 4. Quality of life based on gender and length of stay in the elderly social institution

Variable	Mean (standard deviation)	P value
Gender		
Men	65.04 (11.96)	0.323
Women	67.54 (13.98)	
Length of stay		
Shorter than 2 years	65.30 (10.95)	0.697
2 years or longer	66.39 (13.53)	

Note: Mann-Whitney U

This study shows that there were no significant differences in the mean QOL between the genders. The mean QOL of the elderly who had been staying in the elderly social institution for 2 years was 66.39; there was no significant difference in the QOL of those living in the elderly social institution for shorter than 2 years and those with 2 years or longer. This information can be seen in Table 4.

Discussion

This research showed a low mean QOL of the elderly who are living in PSTW. This research is strongly supported by Pramesona and Taneepatchikul's study in 2018, which showed that the QOL score of the elderly who are living in PSTW is low.¹¹ Another research which conducted in PSTW Wana Seraya Denpasar Bali, resulted that more than 50% elderly who are living in PSTW has a low QOL.¹³ This low QOL indicates the poor condition of those in the elderly social institution.¹¹

In contrast to the research results conducted on 348 elderly who are living in nursing homes, it was found that the value of the elderly's QOL was relatively higher.¹⁹ In line with another research in other Asian, Wang *et al.* research in Singapore 2016, Lai *et al.* in Hong Kong 2014, and research in Vietnam found that, senior residents in nursing homes had a moderate level of QOL.²⁰⁻²²

The elderly who are living in nursing homes who have offspring and can have regular contact with their families can improve their lives while living in nursing.²² In line with Vietnamese culture which emphasizes family relationships, it is possible to establish regular communication between family members as the key to parental happiness.²² In contrary, in Indonesia the majority of the elderly who are living in PSTW were in a poor condition, felt lonely, had no family members who could take care of them, and did not have a house to live in. Therefore, they are living on streets as beggars, so the police officer from the Social Department took these displaced elderly to live in PSTW.¹¹ This reason cause the elderly who are living in PSTW in Indonesia have a low QOL.

This should be the concern of all parties, especially the elderly social institution staff, both from caregivers and nurses who provide services and care to the elderly. Hopefully they become elderly families while in the elderly social institution by paying attention not only to fulfilling daily needs but also providing psychological support so that the elderly feel they have a family that cares for them in the elderly social institution, which increases the quality of life of the elderly.

This research found that, the physical domain had the highest score, whereas the psychological and social relationships domains had the lowest. This is because the elderly living in the elderly social institution rarely interact with each other, so the social support that has been accepted is inadequate.¹⁶ The elderly do not receive love from their families, are neglected, feel lonely, so they feel less valued while living in an elderly social institution that influence the perceptions of the elderly regarding the quality of their life to be low. Unlike the conditions at home, the elderly who live with their loved ones make them feel more valuable, loved and receive attention and support from their families, this condition certainly improves the welfare of the elderly which has an impact on the elderly's quality of life who become higher than the elderly living in elderly social institution.

This research is in line with Hidayati, Gondodiputro, and Rahmiati's research, which stated that the elderly's QOL who are living in elderly social institution is low, focusing on the psychological and social relationships domains.²³ Social support has a positive correlation with the elderly's QOL who are living in PSTW, therefore the higher social support obtained by the elderly, the higher QOL itself.²⁴ However, there was a decrease in social support from the loved ones for the elderly who are living in elderly social institution. In line with Talarska, Tobis, Kotkowiak, Strugała, Stanisławska, and Wieczorowska-Tobis's research in 2018, which concluded that providing adequate support to the elderly will help sustain the biological, psychological, and social activities of elderly and have an impact on improving the quality of life of the elderly.²⁵ That study also shows that the same factors influence the assessment of QOL and the need for support, and there are difficulties in mobility, feelings and memory ability.²⁵

The elderly who are living in the elderly social institution having a different daily activity with the elderly who are living in the community with their family. For the elderly living their life each day happily and being able to do their daily routine activities, could improve a good continuous QOL. Researcher agreed with Wongsawat study in 2017, finding that elderly who are living in the community have been living in their home for decades so they can carry out their daily activities without obstacles.²⁶ On the contrary, the elderly who are living in the elderly social institution have limitation in carrying out their usual activities because they are in a new environment and many limitations that

make them can not do activity like they want and have to share space with other elderly. The living environment has been well-recognized as the predictor of quality of life.²⁶

In terms of age, the highest QOL was reached during the old stage of elderly life, and there was a significant difference between the QOL scores of the elderly who were in the early, middle, and old stages of their elderly life. This is because the elderly who are older are said to have a better perception of QOL and are able to adjust themselves to any changes associated with their age or aging situations, on the other hand the younger elderly face the dilemma about their aging situation and fight with the condition.²⁷ In line with the research by Puspawati and Rekawati in 2017, a good QOL is experienced by the elderly in their old stage.¹⁸ The results of this research are strongly supported by Aulia, Rahmawati, and Sitorus who statistically stated that the age variable has a connection with QOL.²⁸

From this research there were no significant different in the mean QOL between the genders, QOL of elderly women is higher than elderly men. This is quite different from the results of the research conducted on 750 elderly people in Northern Iran, which found that the QOL of elderly women was lower than that of elderly men.²⁹ These QOL differences are affected by several aspects, such as the elderly's perception about their illness and psychological disturbance.²⁹ The results of this research showed that there are no significant differences between the mean QOL of elderly women and that of elderly men. This is because both elderly women and men are treated equally by caregivers and nurses working in elderly social institutions. On the contrary, the results of this study were not in line with the research conducted by Hajian *et al.* in 2017, which stated that there are significant differences between the QOL experienced by elderly men and women.²⁹ According to Chen *et al.* in 2017, gender does not affect the QOL of the elderly, but the level of depression and healthy meal patterns are in charge of QOL.¹⁰

This research showed that the elderly who are already married have the highest mean QOL, and there is a significant difference in the mean QOL of married elderly, those not married, and those divorced. This is because their needs of giving love and being loved in their time significantly influence their QOL, which explains that the elderly with life partners especially in their time feel appreciated for both themselves and their loved ones. The results of this research are in line with the theory of Naing stating that the person who is divorced or not getting married has a low QOL compared to the married elderly.³⁰ The elderly who experience several histories and events that result in changes in their lives are potentially stressed.^{31,32}

Life events that occur to the elderly can include the loss of a spouse or loved one. These events can cause their body to react to stress and have an impact on their psychological functions in terms of individual coping, for example, rejecting the current condition and being quiet, angry, gloomy, anxious, and depressed.³¹ The existence of a life partner

makes the elderly have a partner to talk to, confide in, and tell a story to about happiness and sadness, and thus, positive coping and support from the partner improves their QOL. Aulia *et al.* have already explained that a family connection, especially husband and wife who have a strong bonding, plays an important role in QOL.³¹

Regarding the length of stay, most of the elderly had been living in the institution for 2 years or longer. This is because the majority of them did not have a house to live in or have a family they could spend their time with. This is in line with the previous research, which stated that 52.2% of the elderly have been living in elderly social institutions for 2–5 years and 19.0% for 6–10 years.³³ The results showed that there is no significant difference in the mean QOL of the elderly who have been living in elderly social institutions for shorter than 2 years and those staying for 2 years or longer. This could be because they receive the same facility, such as neighbourhood conditions, vehicles, and health treatments, so it does not affect their QOL.

In the context of the level of education, there is no significant difference in the mean QOL of the elderly with a low, medium, or high level of education. This is because the elderly living in elderly social institutions are social prosperity holders who are dependent on the institution and do not receive different services depending on their level of education. This is in line with the previous research stating that the QOL of the elderly living in elderly social institutions is not influenced by their level of education.³⁴ However, there are a lot of elderly people who have better life satisfaction, which is influenced by their high level of education.³⁵⁻³⁷ In contrast, this research found that the highest QOL was experienced by the elderly who had a medium level of education. This could be because there was a gap between their level of education: 1.9% of the elderly had a high level of education and 30.8% had a medium level of education. In general, a high level of education is expected to have a positive influence because the life satisfaction of those with high education is connected to their social relationships, level of confidence, and better life conditions.

In conclusion, this research showed that the mean QOL of the elderly living in PSTW or an elderly social institution is low, including the physical, psychological, social relationships, and environment domains. There is a significant difference in the mean QOL of the elderly according to their age and marital status. This should be the concern of all parties, especially the elderly social institution staff, both from caregivers and nurses who provide services and care to the elderly.

Hopefully the staffs in the social institution should pay more attention to the elderly who are living in social institution, not only to fulfilling daily needs but also providing psychological support so that the elderly feel they have a family that cares for them in the elderly social institution, which increases the elderly's QOL. The staffs could develop some activities for the elderly to increase the elderly's QOL such as making daily

activities plans, and the evaluation of those activities. This research hopefully would be a point of reference for future research on QOL, and developing action research based on this research.

The study was conducted at the beginning of the COVID-19 pandemic in 2020. Data collection could not be carried out directly by researchers, because social service department stated on the letter that for visit the elderly social institution must be limited to avoid transmission of Covid-19 to the vulnerable population (elderly) who are living in the elderly social institution. So that only those who are working in the elderly social institution can freely come to the elderly social institution to carry out their duties. The researcher decided to ask the staffs of elderly social institution to be a data collector. Before data collection was carried out by the data collector, the researcher provided a technical explanation about the duties of the data collector during data collection, and it aimed to minimize the occurrence of errors in filling out the questionnaire.

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